



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,024	11/21/2003	Matthew G. Thorn	CPCM:0047/FLE/FAR/STA 210	3206
7590 Michael G. Fletcher FLETCHER YODER P.O. Box 692289 Houston, TX 77269-2289			EXAMINER LEE, RIP A	
			ART UNIT 1713	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/720,024

Applicant(s)

THORN ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 9-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27, 28 and 30-32 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-23 is/are rejected.
- 7) ☒ Claim(s) 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action follows a response filed on January 4, 2007. Claims 1, 30, and 31 were amended. Claims 1-5, 9-28, and 30-32 are pending. The indicated allowability of claim 23 has been withdrawn upon further review of a previously cited reference.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 and 9-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Instant claim 1 is drawn to a catalyst comprising the contact product of at least one metallocene, at least one chemically treated solid oxide treated with an electron-withdrawing anion, wherein the catalyst composition is substantially free of an organoaluminum, and wherein the composition will produce a polyolefin when added to an olefin.

A rejection based on enablement is made in view of evidence furnished by Hawley *et al.* (U.S. 6,667,274). Examples 51 and 52 disclose a catalyst substantially free of organoaluminum comprising $\text{Me}_2\text{Si}(\text{Ind})_2\text{ZrCl}_2/\text{Me}_2\text{Si}(\text{Me-Ind})_2\text{ZrCl}_2$ and chlorided, zinc-containing alumina. These catalysts are inactive in polymerization of propylene. One may glean from the prior art, which teaches necessity of having organoaluminum present, that catalysts containing other metallocenes disclosed therein in combination with chlorided, zinc-containing alumina would also be inert, at least, toward propylene polymerization.

Therefore, it is apparent that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1713

3. Claim 23 is rejected under 35 U.S.C. 102(e) as being anticipated by Hawley *et al.* (U.S. 6,667,274).

Examples 51 and 52 disclose a catalyst substantially free of organoaluminum comprising $\text{Me}_2\text{Si}(\text{Ind})_2\text{ZrCl}_2$ / $\text{Me}_2\text{Si}(\text{Me-Ind})_2\text{ZrCl}_2$ and chlorided, zinc-containing alumina.

4. Claims 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 27, 28, and 30-32 are allowed, as indicated previously.

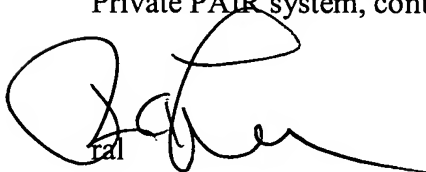
Response to Arguments

6. Applicant's arguments with respect to the rejection of claims under 35 U.S.C. 112, 1st paragraph, set forth in the previous office action, have been fully considered and are persuasive. Consequently, the rejection has been withdrawn. There is sufficient basis for claims drawn to a catalyst substantially free of organoaluminum $\text{Al}(\text{X}^5)_n(\text{X}^6)_{3-n}$ as per *In re Johnson*.

Accordingly, the rejections of claims over McDaniel *et al.* (U.S. 6,376,415 and U.S. 6,395,666) and Hawley *et al.* (U.S. 6,667,274), set forth in the office action of October 3, 2005, have been withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

A handwritten signature in black ink, appearing to be 'Rip A. Lee', with a large loop at the start and a long horizontal stroke at the end.

March 26, 2007